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EXAMINER

GLESSNER, BRIANE

ART UNIT

PAPER NUMBER

3633

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

**Application No.**

10/584,231

**Applicant(s)**

O'GRADY, JAMES FRANCIS

**Examiner**

BRIAN E. GLESSNER

**Art Unit**

3633

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 23 June 2006.  
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-19 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1-19 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.  
10) ☒ The drawing(s) filed on 23 June 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☒ Information Disclosure Statement(s) (PTO/CIS)  
Paper No(s)/Mail Date 6/23/06  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_  
5) ☐ Notice of Informal Patent Application  
6) ☐ Other: \_\_\_\_\_

### DETAILED ACTION

The following office action is in response to the application filed on June 23, 2006. Claims 1-19 are pending in the application. Claims 1-19 stand rejected as set forth below.

#### ***Priority***

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

#### ***Double Patenting***

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-19 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-32 of copending Application No. 11/596,487. Although the conflicting claims are not identical,

they are not patentably distinct from each other because both sets of claims are drawn to a cavity former having a hollow body, a first wall, a skirt wall, valleys, hollow pillar formations, hollow tubular structures, upstanding ribs for supporting rebar and means for interlocking adjacent cavity formers together. Although the ribs are not crossed in the '487 application, it would have been obvious to one having ordinary skill in the art at the time the invention was made to arrange the ribs in a crossed manner because the crossed manner will adequately support the rebar.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

#### ***Claim Objections***

Claim 4 is objected to because of the following informalities: Claim 4 recites the limitations "said hollow tubular structure". This term lacks antecedent basis. The examiner believes that it should be "said hollow pillar formation" as set forth in claim 2 from which claim 4 depends. Appropriate correction is required.

#### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

**Claims 1, 2, 4-6 and 10-13 are rejected under 35 U.S.C. 102(b) as being anticipated by Lassen (5,797,230).**

In regard to claim 1, Lassen discloses a cavity former for forming one or more cavities in a concrete slab, including: hollow bodies 3 about which, during use of the former, poured concrete 9 flows and subsequently cures to form a concrete slab in which the hollow body defines a cavity; wherein said hollow body has a first wall 7, a depending skirt wall 6 about the periphery of the first wall, and structure defining, within said periphery, at least one depending hollow pillar formation (i.e. the spaces at the corners of any four adjacent units 3) for in situ bracing said first wall to an underlying surface on which said skirt wall also rests. The bottom of the hollow pillar would be formed by the flange 8 between the units 3. Also see column 4, lines 22-30

In regard to claim 2, Lassen discloses the claimed invention, wherein said structure comprises a plurality of valleys in said first wall that define said at least one hollow pillar formation at their intersection. The valleys are holding the rebar 1 and 2.

In regard to claim 4, Lassen discloses the claimed invention, wherein said hollow pillar formation has its interior open at said first wall.

In regard to claims 5, 6, 12 and 13, Lassen discloses the claimed invention, wherein said hollow body is configured to allow nesting of said cavity former with a second similar cavity former, and thereby to allow stacking of a multiplicity of said cavity formers, and wherein said skirt wall and said structure defining the hollow pillar formation are tapered to nest with the like features of a similar cavity former. Although Lassen does not specifically mention that the devices are stackable, he does disclose all of the structural features of applicant's claims. Therefore, if applicant's device is

capable of being stacked, then Lassen's device is also capable of being stackable because it has the same features as applicant's device.

In regard to claim 10, Lassen discloses the claimed invention, wherein said hollow body is a rectangular pod open on a lowermost side, see figures 2 and 6.

In regard to claim 11, Lassen discloses the claimed invention, wherein said cavity former has a plurality of hollow bodies or pods spaced apart by integrally formed channels that receive elongated slab reinforcement, figure 1.

**Claims 16 and 17 are rejected under 35 U.S.C. 102(b) as being anticipated by Tokei et al. (5,105,595).**

In regard to claims 16 and 17, Tokei discloses a cavity former for forming one or more cavities in a concrete slab including a hollow body 8 about which, during use of the former, poured concrete flows and subsequently cures to form a concrete slab in which the hollow body defines a cavity, figures 6 or 7, wherein said skirt wall includes at least one outstanding upturned tab 15 for interlocking with a skirt wall of a similar cavity former so as to inhibit relative movement of individual cavity formers during pouring of the wet concrete. Said interlock is such that the plural interlocked cavity formers provide a moisture barrier between the concrete and underlying ground surface, column 2, lines 55-61, i.e. they are arranged without a gap.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lassen (5,797,230) in view of Pontarolo (6,550,207).**

In regard to claim 3, Lassen discloses the claimed invention, except for specifically disclosing that the cavity former comprises a hollow tubular structure which constitutes said pillar formation. Pontarolo teaches that it is known to use a hollow tubular pillar formation 30 in a cavity former structure. It would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate Pontarolo's teaching into Lassen's structure because, as taught by Pontarolo at column 8, lines 1-5, the hollow tubular pillar formation will act as a support and reinforcement for the void forming device.

**Claims 7, 8, 14 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lassen (5,797,230) in view of Leemhuis (2,602,323).**

In regard to claims 7, 8, 14 and 15, Lassen discloses the claimed invention, wherein said hollow body further has a pair of upstanding ribs 16 formed integrally on the outer surface of said first wall for supporting reinforcing mesh above said hollow body. Lassen does not specifically disclose that said ribs are intersecting. Leemhuis teaches that it is known to provide crossing ribs on the first surface of a void former, figure 4. It would have been obvious to one having ordinary skill in the art at the time the invention was made to arrange the ribs in a crossing pattern instead of the pattern shown by Lassen, because the crossing pattern will allow the reinforcement to be

spaced above the first wall and will also provide an integral reinforcement for the wall of the void former.

**Claims 9 and 16-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lassen (5,797,230) in view of Tokei et al. (5,105,595).**

In regard to claims 9, 16, and 17, Lassen discloses the claimed invention, except for specifically disclosing that said skirt wall includes at least one outstanding tab for interlocking with a skirt wall of a similar cavity former so as to inhibit relative movement of individual cavity formers during pouring of the wet concrete. Tokei teaches that it is known to provide at least one tab 15 for interlocking with an adjacent cavity former. It would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate Tokei's teaching into Lassen's invention, because by providing tabs on Lassen's device, the adjacent devices will be able to, as taught by Tokei, interlock and be arranged without a gap (column 2, lines 55-60). Therefore, concrete will not be able to flow between and below the cavity formers.

In regard to claim 18, Lassen in view of Tokei disclose the basic claimed invention, wherein said hollow body is a rectangular pod open on a lower side, figures 2 and 3.

In regard to claim 19, Lassen in view of Tokei disclose the basic claimed invention, wherein said cavity former has a plurality of hollow bodies or pods spaced apart by integrally formed channels that receive elongated slab reinforcement, figures 1 and 2.



**Claims 18 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tokei et al. (5,105,595) in view of Lassen (5,797,230).**

In regard to claim 18, Tokei discloses the claimed invention, wherein said hollow body is a pod open on a lowermost side. Tokei does not specifically disclose that said hollow body is a rectangular pod. Lassen teaches that it is known to make hollow bodies of cavity formers square, figure 2, or circular, figure 4. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made make Tokei's hollow body square or circular as taught by Lassen, because both shapes will function in the same manner to provide a slab having voids therein. Further, the examiner contends that merely changing the shape of the cavity former would not be a patentably distinct feature since applicant has not disclosed why the rectangular shape is any better than a circular shape.

In regard to claim 19, Tokei discloses the claimed invention, wherein said cavity former has a plurality of hollow bodies or pods spaced apart by integrally formed channels. Tokei does not specifically disclose that said channels receive elongated slab reinforcement. Lassen teaches that it is known in the art to place slab reinforcement in the channels so of a cavity former. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to place the reinforcement in the channels of Tokei, because the channels will ensure that the reinforcement is maintained in the proper place during the pouring of the concrete.

***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Cauffiel, Pontarolo, Rothberg, Logsdon, Koukourou, Millman, Carl, Leonardos and Takegawa et al.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to BRIAN E. GLESSNER whose telephone number is (571)272-6843. The examiner can normally be reached on Monday through Wednesday and Friday 6:00-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Chilcot can be reached on 571-272-6777. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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